

The contribution of intellectual capital to support competitive advantage compared to the Algerian experience

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Received: 20/03/2025

Accepted: 05/05/2025

Published: 03 /06/2025

Abstract:

The idea of the research is to identify the theoretical framework of competitive development and human intellectual capital, and the role played by the latter in the success of most economic enterprises, especially Algerian companies. Various studies and successful experiences in many economies, especially Algerian institutions, have confirmed to us that the secret of their rebirth and growth lies in the minds and arms of their children, for whom effective strategies have been put to good use for their preparation and development.

While we see that, other countries are, still suffering and floundering in many problems and have not yet achieved economic development due to their neglect of the role of the human element. Therefore, the importance of human capital appears to be an important factor in achieving competitive development and hence economic development. It was concluded that the enterprise can measure its success and effectiveness by evaluating the performance of human capital, whenever the performance is good, it gives a positive image of the institution and its competitive development with various economic institutions and thus achieves its objectives efficiently and effectively.

Keywords: Human Capital, Competitive Development, Economic Development

Jel Classification Codes : O01 ; A2 ; O03

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Introduction :

If competition is the principle on which today's economies are based, there can be no doubt that the quest for the gamble has become legitimate and, in the light of the era in which we live, called the knowledge and information economy, it has repercussions at all levels (political, social and economic), and perhaps the economic aspect is the most important due to the constantly evolving studies it contains.

To meet the challenges posed by the competitive forces that continue to prevail, globalization has had a profound impact on the economic life of most countries. This has been reflected in the arena of competition between institutions, where it has begun to focus on intellectual work to adapt to the digital reality and has given greater importance to the human resource as a permanent resource to create any competitive edge and seek to know the main factor that contains the human resource, which affects the most in the creation and support of competitive advantage.

The importance of the subject:

The subject derives its importance from:

- This study is linked to one of the subjects that leads the organization to achieve its objectives, i.e. human capital.
- Highlights the reality of evaluating the performance of economic companies through human resources.
- Highlighting the role played by human capital in developing the competitiveness of economic companies in Algeria.
- Attempting to uncover the most important problems facing the industrial sector, in particular the human resources aspect.

research objectives:

- To analyse the role of intellectual capital in strengthening the competitive advantage of companies.
 - To study how to components of intellectual capital (human capital, structural capital, and relational capital) influence the performance of Algerian enterprises.
 - To compare the Algerian experience with international practices in managing intellectual capital.
- To identify the challenges and propose recommendations for better utilization of intellectual capital in the Algerian context.

Research problem :

On the basis of the above, our problematic falls within this framework and is based on the following main question:

How does human intellectual capital contribute to competitive edge?

Hypotheses :

1-There is a significant positive relationship between the effective management of intellectual capital and the competitive advantage of Algerian companies

2-The human capital component has greater impact on competitive advantage compared to structural and relational capital in Algerian business environment.

The methodology :

To successfully carry out this research ,we therefore favored a qualitative approach.

We will approach this problem from the following axes:

The first axis: The concept of human capital

The second axis: The role of human resources in the development of the national economy

The third axis: the contribution of human capital to sustaining competitive advantage.

The first axis: The concept of human capital

Wealth used to be thought of as being made up of tangible assets such as land, buildings and equipment, but today human capital is the most valuable asset in driving economic development.

The interest in human capital began with the publication of the Division of Labour by Adam Smith, who explained that increased productivity could be due to intangible capital, and therefore advocated the need to pay attention to intangible capital. The term human capital was first used in modern times by Jacob Senser, followed by the writings of Schultz and Baker.

On the other hand, we note that attention to this element has become a necessity for the universalisation of sustainable development in the countries of the world today. Interest in it has increased, especially after the Second World War and the subsequent devastation and destruction of many countries of the world and the desire to achieve economic development in the economically underdeveloped countries (Berkan & Bedri, 2023) after their noble political independence. Therefore, the interest in the human element and consider it as an investment expense and not a consumer, and that it will contribute to the development process of the state and not an obstacle to it, in addition to its positive contribution to achieving the accumulation of wealth and gain a competitive edge for the organization.

Reality of the concept: Human capital

Human capital is considered to be everything that increases the productivity of the human element, such as cognitive and technical skills acquired through science and experience. Despite its important role in increasing the production of goods and services, human capital differs from physical capital mainly because it is intangible in nature. (BENIA, 2005)

The great economist and winner of the Nobel Prize in Economics 1979 Schultz, with his famous lecture 'Investing in Human Capital', owes a great deal to the first foundation of the general concept of the term 'human capital'.

Where there are many concepts and definitions that are given human capital depending on the vision and objective of its owner. The concept of human capital in the broadest sense is the body of knowledge that individuals acquire over the course of their lives - and even ideas - and which they use to produce goods and services on or off the market.

Merrete, Laroche and Ruggeri define it as all the innate skills, knowledge and competences that individuals have acquired and developed over the course of their lives, a definition that attempts to combine the ability to acquire and develop human capital. (DEHANE, 2009)

It is also defined as all the knowledge, skills, competencies and other assets that a person possesses or acquires, which would give him social, economic and personal advantages that would enable him to achieve individual, social and economic well-being. (DEHANE, 2009)

In the narrow sense, human capital is: the totality of investments in activities such as: education, health, training and training for work, which makes it possible to increase the productivity of the worker on the labour market.

The organization for Economic Co-operation and Development (OECD) defined it as: the set of knowledge, skills, competencies and personality traits that facilitate the creation of individual economic and social well-being. (SAID, 2014)

Human capital is also defined as a 'form of organization' and is formed by several influences and sources, including organized educational activities, which take various forms such as education, training, knowledge, skills, abilities, potentials, qualities and other characteristics, which combine with each other in different forms depending on the nature of the individuals and the field of work. (Becker, 2003)

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Human capital means the sum of the knowledge and abilities of each individual, because one part of this capital is in the individual, and the other part is acquired⁴. We conclude that human capital is made up of two parts: an innate part and an acquired part. The innate part expresses the innate physical and mental antagonisms that come with the individual, while the acquired part, which is the most important part, expresses the totality of knowledge, skills, qualifications, physical abilities, experience and acquired experience.

The size of human capital increases as a result of demographic factors which include the size of the population, the rate of population growth, the distribution of the population and its movements, the qualitative and age order of the population, and the population element is that which affects the labour element which interacts with other elements of production such as nature, capital and the time of the productive process required by society. It is necessary here to sort out three concepts, as they are often used equally to express the same thing: intellectual and social capital and human capital⁵. The latter is referred to as the individual's experience and skills and intellectual capital and is part of human capital and includes experience that has no competing economic activities, workers are considered intellectual capital and brains to which it is difficult to find an alternative.

1- Schultz's theory: The theory of human capital as initiated by Theodor Schultz and developed by Gary Becker and Jacob Mincer explains, both in theory and in practice, that investment in education and training provides solutions to a number of problems that hamper the economic policy of planners and decision-makers. It assumes that human capital is a determining factor in economic growth. Schultz tried to find explanations for the effect of efficiency in explaining the increase in income, so he sought to shift the focus from mere interest in the material components of capital to interest in the less material components, which is human capital. Schultz noted researchers' neglect of human wealth and avoided any systematic analysis of it.

Schultz's concept of investing in human capital is a major contribution to the economy, as he emphasized the need to consider an individual's skills and knowledge as a form of capital in which to invest.

According to Schultz, this type of investment has led to faster growth rates in Western societies than investment in physical capital, and he believes

that the growth of human capital can be one of the most important features of the economic system.

Schultz based his concept of human capital on three basic premises: (RAOUYA, 2005)

1- Economic growth, which cannot be explained by the increase in financial inputs, is mainly due to the increase in the accumulated stock of human capital.

2- Imbalances in income can be explained by differences in the amount of human capital invested in individuals.

3- Income equity can be achieved by increasing the ratio of human capital to traditional capital.

Schultz focused his early research on human investment on productivity in agriculture, particularly in the United States, and noted that the introduction of new capital in the form of agricultural human resource development leads to a continuous increase in productivity on American farms.

2- Elements of human capital, its characteristics and dimensions

The subject of human capital has become the focus of attention for many researchers in the economic literature. Human capital as intangible capital is closely linked to the knowledge acquired by individuals. The elements of human capital are represented in education, training, health rehabilitation and scientific research, as they are among the most important elements of human development.

2-1 Education:

Many economists view education as human capital in terms of the stock of resources; the '**stock of resources**' refers to the skills and knowledge acquired as a result of education, and both Colfman and Sktural consider that the skills and knowledge acquired in schools are part of human capital as an indicator of human resource development, and that education is a key factor in the development of societies where there is a positive relationship between education and economic growth. (Chihane, 2006)

2-2 Training:

Teaching is understood as the process of learning and aims to develop and improve the effectiveness of an individual's performance, i.e. to bring about change by raising its level to higher levels through experience and exercise. Training aims to increase the skills of individuals and to perform a

specific job, and all the activities that this team is looking for represent training activities.

2-3 Health rehabilitation:

Human beings are the goal of development and their main objective is to live a long life free of disease and illness... and so on. And to learn until he reaches the resource that guarantees him a decent standard of living. Development aims to create an environment that enables people to develop their potential and capabilities, which means training and building human capacity, improving health and raising education levels. For the human element to be effective and able to live its daily life in the best way possible, it must enjoy good health that ensures it lives as long as possible. The human dimension is based on the longevity index and is measured by life expectancy at birth. (Chihane, 2006)

2-4 Scientific research and development:

Interest in the field of scientific research and development began and its importance in economic growth and development increased like the rest of the elements of human capital and the importance of this element in the development of power standards in today's world, which benefits from many developments and proposals involved in science, science and technology. (Chihane, 2006)

The second axis: The role of human resources in the development of the national economy

Qualified and specialized human resources are the basis for the progress of industry and the development of the economy in general, so the interest of industrial institutions is directed at improving the capabilities of workers and developing their level of qualification. It is not easy to obtain a skilled labor in sufficient numbers to perform the work in the institution, and here the role and importance of human capital in economic institutions to attract the human element and the ability to maintain it.

1-The relationship between human capital and economic growth

The economic models developed in the sixties of the twentieth century focused on analysing economic growth and the factors that determine this growth. Economic growth was interpreted in the light of the traditional factors of production: land, labour and capital. Attempts were made to use these models to compare data on national income growth with data on these traditional factors, but these comparisons revealed that there was a high

percentage of national income growth that was not due to the increase in the factors of land, labour and capital, it was due to another factor that these models could not explain, called the remaining factor in economic growth. (Arab Center for Educational Research for the Gulf States, 2012)

In addition to physical capital stocks, human capital stocks are one of the factors of production in determining economic prosperity and progress, playing an important role in determining the capacity to absorb new knowledge and technologies, thereby increasing labour productivity. Productivity growth, in turn, is a key factor in promoting long-term economic growth. Where human capital represents a part of economic growth strategies because it is the guide and controller of physical capital, because man must affect his material and intellectual achievements, and this is confirmed by modern growth models that have crystallised in the writings of (Robert Lucas, Paul Romer). This close link between economic growth and the accumulation of human capital creates skilled energies which help to increase production. (Hacen, 2014)

2-Propose a model for investment in human capital to promote economic growth and development

We will try to propose a model for investment in human capital to serve increased economic growth as a short-term objective and development as a long-term objective. We will try to underline the importance of education in the service of economic development, through the main objectives of education, which are: civic education, personal development and workers' education.

1.Investment in human capital as a driver of economic growth

Investing in people has become the primary task of theorists and practitioners in the field of public and private policy. Building the future requires investment not only in the tangible, but also in the intangible, particularly in education and training. Investment in human capital has become one of the major concerns of public policy in both developed and underdeveloped countries.

The third axis: the contribution of human capital to sustaining competitive edge.

The development and growth of the competitiveness of any institution can only be achieved by the quality and efficiency of its human resources rather than by the quality of its material capital on which it relies to operate. This reflects the need to activate the contribution of the human element and

its role in the daily life of the institution by providing the right atmosphere for creativity, innovation and development... etc.

Achieving the right atmosphere for the institution and its human capital and meeting their objectives at the same time, thanks to their technical and behavioral qualifications and the development of their skills, represents the centre of gravity and the main indicator of the institution's results. This meant that attention had to be paid to the human element within the institution. (A, BERKANE & S. BADRI, 2023, pp. 23-34)

1- Human skills in the information era

The importance of the contribution of human capital through the most important human skills in the information age. These human skills are not fixed, but are variable according to the needs of the job, because the skills of the agricultural era differ from the skills of the industrial era differ from the skills of the information era.

1-1 Definition of human skills

Human skills are defined as the set of knowledge, work abilities and behaviors structured according to certain situations. (J. Aubert, P. Gilbest , & F. Pigeyre, 1993)

It is also defined as the set of knowledge, abilities and aptitudes of an individual (group) acquired through professional practice and performance. (Peretti, 2005)

Although there are those who define it as: ‘the capacity of an individual to translate the knowledge of what is in its work in order to achieve the desired or expected results’ (Schermerhorn, 2002)

1-2 Benefits of human skills

There is a set of human skill benefits that can be summarized as follows: (J. Aubert, P. Gilbest , & F. Pigeyre, 1993)

- Skills are not tangible but have tangible results.
- It relates to the situation in which an individual finds himself, in the sense that it varies from one job to another and from one level to another.
- It is the result of the dynamic interaction between science (knowledge), practice and thinking style (mental capacity).
- It is transferable, because it can be transferred from ideas to methods of action (method), it can be transferred from one individual to another through training and practice.
- Skills vary from one level to another within the organisation.

1-3 Types of human skills within the organization

According to Robert Katz, there are three types of skills: (Schermerhorn, 2002)

Technical skills: (Technical)

Refers to an individual's ability to perform what is required of him in specialized tasks that require certain knowledge or experience gained through training or practical (practical) experience. These skills allow for the effective use of selected methods, procedures and procedures based on the tasks to be performed.

The Fourth Axis : Empirical case

1- Identification of the ENAP company:

The national paint company (ENAP), part of the public holding company Chimie Pharmacie, is a public economic company whose core business is the production of organic coatings (paint, fats, resins, emulsions, siccatives and glues).

The ENAP is a company per share (S.P.A), and its capital is 500000000 DA. It is made up of six (6) production units located throughout the country.

- Two (02) units in the Greater Algiers region (Oued-Smar and Cheraga);
- One (01) unit in the wilaya of Bouira (Lakhdaria);
- One (01) unit in the wilaya of Mascara;
- One (01) unit in the wilaya of Souk-Ahras;
- One (01) unit in the wilaya of Oran, the location of our study.

In order to develop and consolidate its activities in paint products, ENAP is looking for a business partner. It has more than 30 years of experience and a production capacity of 150,000 tonnes of paint and 50,000 tonnes of semi-finished products (resins, emulsions and siccatives).

Our study focuses on the branch of the wilaya of Oran.

A. Presentation of the Oran branch:

This branch is the result of the nationalization on 14th June 1968 of the former foreign companies Ripolin and View Cote (ex S.N.I.C) from 1968 to 1988. When the companies were restricted. On 1st January 1988, it was reintegrated into the national paint company.

B. Some characteristics:

Surface area :

- Total surface area : 310500 m².
- Covered area 8774 m².

C. Location in relation to :

- Airport : 6 Km.
- Port : 5 Km.
- National road : 2 km.

D. Main activity :

- Production and marketing of paints, varnishes and coatings.
- Production range: Buildings, industry and varnishes.

E. Type of production:

ENAP produces two types of products:

- Consumer and drugstore.
- Building paint: super white rock, Glyalac2000, Andalou, Thixomat, Atlas, Univerra, Maxolin, Gerodor, Gerodar.
- Paint industry: Glyfer, Primafer.
- Varnish, verinex.

F. Production process:

Once the raw materials have been prepared in accordance with the formulas, the process comprises the following phases:

Stuffing: this operation is carried out in stuffers;

Grinding: for solvent-based paints only, this operation is carried out in ball mills;

Delission: once the viscosity has been checked by the laboratory, it is often adjusted by adding resins, solvents or other additives to give the paint the desired viscosity. The delission is carried out under agitation in vats.

2- Population and sample studied :

The study population consisted of all the employees of the ENAP company, at all administrative levels, numbering 80. The study sample consisted of all employees of the institution, where a simple random sample was drawn. Drawn from this community to study and disseminate its results to the study community, using a table. Determine the sample size. We distributed (66) questionnaires and (60) were returned to us, as this value represents the valid sample size for the study.

3- Study tool :

The questionnaire was used as a data collection tool. The questionnaire consisted of two sections as follows:

The first section included personal quality measurement using (04) elements related to (sex - age - university degree - number of years' experience). The second section is the pure section of the study axes, as it consists of two parts. The first part includes the administrative human capital axes. The second part included the competitive advantage axis. The Likert scale was used to measure trends in responses from the study sample, as per the following table:

Table N°1 : Likert scale

Response	I totally disagree	I don't agree	I agree to a certain extent	I agree	I totally agree
Level	01	02	03	04	05

4- Statistical processing methods :

After obtaining the necessary initial data, we began to study and analyze it and try to answer the questions of the study. We processed them through one of the statistical control systems, which is the program known as Statistics. Package for Social Sciences (SPSS V22), as a basic tool to capture data and obtain the statistical results used -Stability coefficient test. - Arithmetic averages, trends in knowledge, opinions for each axis, whether it is human capital or competitive advantage.

Standard deviations to measure the degree of absolute dispersion of the response values in relation to their arithmetic mean - Correlation coefficient to measure the type and degree of relationship between the variables in the study.

Use a simple linear regression method to determine the role of human capital in competitive advantage.

5- The validity and stability of the scale: Kronbakh's Alpha

Reliability refers to the consistency of the questions. It means that if the research was carried out by other independent researchers using the same methodology and strategy, they would reach a similar conclusion, all other things being equal. If a method of gathering evidence is reliable, this means that anyone using that method, or the same person using it at another time, would come up with the same results. According to Oppenheim (2001), the key elements of data reliability include consistency, accuracy and applicability of results, which suggests that the researcher should be consistent when collecting data and aim for a high degree of accuracy, which will of course be subject to many factors beyond the researcher's control.

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The validity of the study tool was confirmed by calculating the correlation coefficients between each dimension and the total score of the axis to which it belongs. To ensure the validity and stability of the study tool, we calculated the Cronbach coefficients and the results were as follows:

Table N°2 : Cronbach's coefficients

	Number of sentences	Reliability coefficient alpha	Honesty coefficient
Human capital	14	0,8575	0,935
Competitive advantage	19	0,888	0,942
Total	33	0,8815	0,9385

Processed by SPSS V22

Kronbakh alpha	Internal consistency
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

The above table clearly shows the results of the overall validity and reliability coefficients for the study variables. for the variables in the study, since the overall reliability coefficient reached 0.8815, which is a very strong reliability coefficient (**good**) and suited to the needs of the research. The research axes and their dimensions were also judged to be suited to the research objectives. We also confirmed the stability of the research tool (Questionnaire), which gives us full confidence in its validity for analyzing the results.

6- Analysis of results :

This part dealt with the responses of the members of the study sample concerning the dimensions of the independent variable, the opinion of administrative human capital and the dimensions of the dependent variable (competitive advantage). Know some of the personal and professional characteristics of the study sample members, which are as follows:

A. Distribution of sample items by gender

Table N°3: Distribution of sample items by gender

Gender	Repitition	%
Male	40	66,66
Female	20	33,33
Total	60	100

Processed by SPSS V22

In the table, we notice that the number of men in the sample is (40), i.e. 66.66% of the total sample size, while the number of women is (20), i.e. 33.33% of the total sample size. This can be justified by the nature of ENAP's work.

B. Distribution of sample members by age:

Table N°4: Distribution of members of the sample by age

Age	<30 ans	30-35 ans	36-40 ans	41-45 ans	>46	Total
Repititions	13	17	10	12	8	60
%	21,66	28,33	16,66	20	13,33	100

Processed by SPSS V22

The previous table shows that their percentage (21.66) is under 30 years of age, and the percentage of individuals aged (30-35 years) reaches (28.33). For individuals over 46 years of age, their percentage represents (13.33) of the total sample size. It is also noted that the majority of individuals are under 40 years old, their percentage reaches 66.66%, while individuals over 41 years old (33.33). We conclude that most of the sample members are young people.

C. Distribution of sample members by professional experience :

Table N°5: Distribution of sample members according to professional experience

Professional experience	1-5 years	05-10 years	>10 years	Total
Repititions	10	20	30	60
%	16.66	33.33	50	100

Processed by SPSS V22

The previous table shows that 10 of the sample members have experience ranging from (01-05 years), their percentage (16.66) of the total sample size. 20 individuals with experience between (5 and 10). (33.33 individuals) for those with more work experience.

D. Distribution of sample members by level of education:

Table N°6: Distribution of the members of the sample according to the level of study

Study level	Average	Secondary	Academic Bachlor/Master	Higher Education Magister	Total
Repititions	6	13	30	11	60
%	10	21.66	50	18.33	100

Processed by SPSS V22

It is clear from the table above that 06 individuals in the sample have an average level of education, i.e. 10%, while the number of individuals with secondary education reaches 13 individuals, i.e. the equivalent of 21.66.

There are 11 people with higher education, so we can see that the majority of the members of the sample have a university degree, which can be attributed to the fact that ENAP needs specialised people with a good level of education to develop and continue to achieve excellence and competitiveness.

E. Distribution of sample members by function:

Table n°6: Distribution of sample members by function

	ADM supérieur		Intermediate ADM		ADM inferior		Total
	Director	Dssistant director	Head of Dept.	Head of service	Research Manager	Employee	
Repititions	1	1	3	5	2	48	60
%	1.66	1.66	5	8.33	3.33	80	100

Processed by SPSS V22

The table above shows that the number of individuals employed in senior management is (02) individuals, equivalent to (3.33%) of the sample.

The number of middle managers is (08) people, equivalent to (13.33%), while the number of lower management is (50) people, equivalent to (83.33%).

These figures are consistent with the level of study, and this is due to the fact that most of the activities of the general management of this company are between middle and lower management.

F. Calculation of the average for the human capital variable :

Table N°7: Calculation of the average for the variable human capital

	Moyenne	Médiane	Mode
	Average	Median	Mode
Skills	3,61	4	5
Knowledge	3.55	4	4

Processed by SPSS V22

The table above shows that the average calculated for skills represents the highest value (3.61), followed by knowledge (3.55).

G. Kolmogorov-Smirnov Test :

The Kolmogorov-Smirnov test for a sample compares the observed cumulative distribution function of a variable with a specified theoretical distribution, which may be normal, uniform, Poisson or exponential. The Kolmogorov-Smirnov Z is calculated from the greatest difference (in absolute value) between the observed and theoretical cumulative distribution functions. The goodness-of-fit test checks whether the observations can be reasonably deduced from the specified distribution.

Table N°8 :Kolmogorov-Smirnov test:

Human capital	Signification
Skills	0.010
Knowledge	0.020

Processed by SPSS V22

The Kolmogorov-Smirnov test shows us that the above variables follow a normal distribution, since the significance values (Sig) are less than 0.05.

We can therefore use non-parametric tests.

The main objective of the statistical analysis applied in this research is to verify whether there are significant differences in respondents' perceptions across various control variables at the level of the overall sample and among various groups of respondents. Significance testing is generally concerned with accepting or rejecting hypotheses or proposals that may be appropriate for this study as the data collected were mainly nominal and ordinal, so we can use the following tests:

H. Spearman correlation coefficients:

The Spearman correlation coefficient is a measure of correlation that shows how closely two sets of data are related. This can only be done on data that can be put in order, from highest to lowest in this study, the Spearman rank correlation is used to verify if there is a correlation between different groups of respondents

To use Spearman's correlation coefficient, we need to test two ordinal variables.

In our study we will test competitive advantage (ordinal variable) with the dimensions of human capital (also ordinal variables).

Table N°9 : Spearman correlation coefficients

		Signification	Spearman correlation coefficients
Competitive advantage	Skills	0.025	+0.756
	Knowledge	0.027	+0.733

The table above shows that the calculated significance values (Sig) are less than 0.05, so there is a statistically significant correlation between the dimensions of human capital and competitive advantage.

All the Spearman correlation coefficients are also positive, which means that there is a correlation between the above elements.

Finally, the Spearman correlation values are also higher than 0.7, indicating a strong correlation, but varying from one factor to another, where we note that the highest value is that of skills (0.756).

Conclusions:

The previous study showed that the executives working at ENAP confirm that human capital plays a major role in achieving a competitive advantage in its components: (skills and knowledge).

Algerian companies must strive to achieve a competitive advantage at all levels by adopting the concept of human capital and working to create a climate conducive to its growth and development by increasing the capacities and skills of workers in addition to assigning the skills of the maneuver, adapting a unique team approach and providing a motivation system characterized by fairness and objectivity.

- Human capital has a positive impact on economic growth in most economic institutions, but in varying proportions.

- The interest in building an effective human element was long-standing in developed countries with emphasis on quality of education, Whereas the formation of the human element with the concept of investing in human capital that creates wealth and contributes to development began after the Second World War, and interest in it has increased greatly recently.

- Focus on building human capital on mindsets before materialism (focusing on the quality of training before focusing on buildings and equipment, focusing on the quantity of graduates and the number of people enrolled in education), and the importance of work before money.

- One of the pillars that helped build these strong economies was that investing in human capital in them had an impact even on the psychological aspect of the individual, making individuals believe they could rebuild their country (as in the Chinese experience, the German experience).

- There is a huge human potential in Algeria that has not found a way to showcase its talents, forcing it to migrate to other countries to take part in international competitions and prove its skills, which obliges the guardianship authorities in Algeria to set up an emergency unit to take care of innovation and creativity in Algeria, without focusing on the quality of the certificate, but with the principle of excellence in work and achievement (as is the case at Qatar Science Foundation)

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